This application is a division of U.S. application No. 09/150,707, filed September 10, 1998, now U.S. Patent No. 6,207,244, which was a continuation of International Application Serial No. PCT/DE97/01239, filed August 13, 1996, which designated the United States. --

In the Claims:

Claim 1 (amended). A process for producing a composite structural element for impact protection and insulation, which comprises:

providing a thin-section wall part;

placing the thin-section wall part into a mold;

applying reinforcing elements made of a renewable raw material to the thin-section wall part for flexural rigidity and heat insulation;

placing a counter-mold onto the mold for forming a mold cavity;

introducing a binder having a foaming agent into said mold cavity, after a set time delay a foaming of the binder occurring to encapsulate the reinforcing elements.

Claim 8 (amended). The process according to claim 1, wherein the step of applying reinforcing elements made of a renewable

raw material to the thin-section wall part is performed by producing moldings and hard shells formed of the reinforcing elements and bonding adhesively the moldings and the hard shells to the thin-section wall part.

Enter The Following New Claims:

--11. The process according to claim 1, wherein the step of introducing the binder is performed by using injection cannulas.

12. The process according to claim 1, wherein the step of introducing the binder is performed by using injection nozzles.

13. The process according to claim 1, wherein the step of applying reinforcing elements made of renewable raw material is performed by using dicotyledons as reinforcing elements.

14. The process according to claim 1, wherein the step of applying reinforcing elements made of renewable raw material is performed by using monocotyledons as reinforcing elements.

15. The process according to claim 1, wherein the step of foaming the binder is performed to encapsulate the reinforcing elements on all sides.--

Remarks:

Reconsideration of the application is requested.

Claims 1-15 are now in the application. Claim 1 has been amended. Claims 11-15 have been added. Claims 8-10 have been withdrawn from consideration in view of the below-noted election requirement.

Support for the subject-matter of newly added claims 11-12 and 15 can be found in claim 1 as originally filed. Support for the subject-matter of newly added claims 13 and 14 can be found in the first paragraph on page 5 of the instant application.

A new title - PROCESS FOR PRODUCING A COMPOSITE STRUCTURAL ELEMENT FOR IMPACT PROTECTION AND INSULATION - is proposed, and the entry thereof is requested. The new title is believed to be more descriptive, and corresponds to the amended preamble of claim 1. Support for the changes can be found on page 1, lines 16-19, of the instant application.

In item 2 on page 2 of the above-identified Office action, Applicant has been required to elect a single species for further prosecution under 35 U.S.C. § 121. Applicant affirms the election of claims 1-7 and 11-15. However, claim 8 has

been re-written to be dependent on claim 1 and, therefore, claim 1 is believed to be generic.

In item 8 on page 3 of the Office action, the disclosure has been objected to because of one informality. The Examiner's comments have been noted and the appropriate correction, as suggested by the Examiner, has been made to the disclosure.

In item 10 on page 4 of the Office action, claims 1-7 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph. More specifically, the Examiner has stated that "in claim 1, the phrase 'after a set time delay a foaming of the binder occurring for encapsulating the reinforcing elements on all sides' is confusing." The Examiner's comments have been noted and the appropriate corrections, as suggested by the Examiner, have been made to the last feature of claim 1, with one exception. The gerund form "occurring" should be used for proper claim wording.

It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, second paragraph. Should the Examiner find any further objectionable items, Counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the last feature of claim 1 are provided solely for the purpose of clarification or are made solely for cosmetic reasons to

clarify claim 1. The above-noted changes to claim 8 are provided solely for the purpose of making claim 8 dependent on claim 1. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

In item 14 on page 5 of the Office action, claims 1 and 2 have been rejected as being anticipated by or, in the alternative, as being obvious over *Rutsch et al.* (US 4,298,556) under 35 U.S.C. § 102 and § 103, respectively.

In item 15 on page 5 of the Office action, claim 3 has been rejected as being obvious over *Rutsch et al.* in view of *Preston* (US 4,714,575) under 35 U.S.C. § 103.

In item 16 on page 6 of the Office action, claim 4 has been rejected as being obvious over *Rutsch et al.* in view of *Miyake et al.* (US 5,354,397) under 35 U.S.C. § 103.

In item 17 on page 7 of the Office action, claims 5 and 6 have been rejected as being obvious over *Rutsch et al.* in view of *Applicant's Admitted Prior Art* under 35 U.S.C. § 103.

In item 18 on page 7 of the Office action, claim 7 has been rejected as being obvious over *Rutsch et al.* in view of *Teubert* (WO 94/09982) under 35 U.S.C. § 103.

The rejections have been noted and claim 1 has been amended to recite "applying reinforcing elements made of a renewable raw material to the thin-section wall part for flexural rigidity and heat insulation" in an effort to even more clearly define the invention of the instant application. Support for the changes can be found in the paragraph bridging pages 3 and 4 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 as amended calls for, inter alia:

> providing a thin-section wall part;
>
> placing the thin-section wall part into a mold;
>
> applying ***reinforcing elements made of a renewable raw material*** to the thin-section wall part ***for flexural rigidity and heat insulation;***
>
> placing a counter-mold onto the mold for forming a mold cavity;
>
> introducing a binder having a foaming agent into said mold cavity, after a set time delay a foaming of the binder occurring to encapsulate the reinforcing elements.

Rutsch et al. disclose a method for matched die molding of a fiber reinforced polyurethane foam molded product. The reinforcement used in *Rutsch et al.* is fiber reinforcement, and in the preferred embodiment, a fiberglass reinforcement is used. There is no disclosure or suggestion in *Rutsch et al.* teaching the use of reinforcements made of a renewable material.

It is accordingly believed to be clear that *Rutsch et al.* neither show nor suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and because claims 2-13 are ultimately dependent on claim 1, they are believed to be patentable as well.

Considering the deficiencies of the primary reference *Rutsch et al.*, it is believed not to be necessary at this stage to address the secondary references applied in the rejections of the dependent claims, and whether or not there is sufficient suggestion or motivation with a reasonable expectation of success for modifying or combining the references as required by MPEP § 2143.

In view of the foregoing, reconsideration and allowance of claims 1-13 are solicited.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section 1.136(a) in the amount of $ 110.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

MARKUS NOLFF
REG. NO. 37,006

For Applicant

MN:cgm

February 4, 2003

Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101

Version with markings to show changes made:

Page 1, lines 6-10, with --

This application is a division of U.S. application No. 09/150,707, filed September 10, 1998, now U.S. Patent No. 6,207,244, which was a continuation of International Application Serial No. PCT/DE97/01239, filed August 13, 1996, which designated the United States. --

Claim 1 (amended). A process for producing a composite structural element for impact protection and insulation, which comprises:

providing a thin-section wall part;

placing the thin-section wall part into a mold;

applying reinforcing elements made of a renewable raw material to the thin-section wall part for flexural rigidity and heat insulation;

placing a counter-mold onto the mold for forming a mold cavity;

introducing a binder having a foaming agent into said mold cavity [via one of injection cannulas and nozzles], after a set time delay a foaming of the binder occurring [for

encapsulating] to encapsulate the reinforcing elements [on all sides].

Claim 8 (amended). [A process for producing a composite structural element, which comprises:] The process according to claim 1, wherein the step of applying reinforcing elements made of a renewable raw material to the thin-section wall part is performed by producing moldings and hard shells formed [with] of the reinforcing elements [and a binder by foaming of the binder for encapsulating the reinforcing elements;

producing hard shells formed with the reinforcing elements and the binder by foaming of the binder for encapsulating the reinforcing elements; and

providing a thin-section wall part,] and bonding adhesively the moldings and the hard shells to the thin-section wall part [for forming a composite element].